

Work Order ID 108707

October-29-13 8:51:47 AM

649.8310
B108707

108707

Page 1

Item ID: 649.8310

Revision ID:

Item Name: Cutter Body

Start Date: 10/30/13 Start Qty: 20.00

Required Date: 11/08/13 Req'd Qty: 20.00

Reference:

Approvals:

Process Plan: ML5

Date: 13-10-29

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

649.8300

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut Blank at 7.425"

DK/BA
13/11/08.

20 /

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine per folio FB224

DWG REV: W/C

FOLIO REV: AA

2- deburr and break all sharp edges

20

SLB-11-15

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Page 2

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Item ID: 649.8310

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Cutter Body

Start Date: 10/30/13 Start Qty: 20.00

20

Cust Item ID:

Required Date: 11/08/13 Req'd Qty: 20.00

20

Customer:

Reference:

Run Start ***NR1***

Stop ***NR2***

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120									
QC	Memo	0.00							
Quality Control									
130	QC8- Inspect parts - second check	0.00							
130									
QC	Memo	0.00							
Quality Control									
131		0.00							
131									
Hand Finish	Memo	0.00							
Hand Finishing	Clean & remove markings (acid etch only)								

20 *13-11-15*

B-a 13/11/17

20 *0* *DAS 08 9-89*

02 13/11/22

N/A

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N900040100

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NS1

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Stop

NS2

Item Name: Cutter Body

Start Date: 10/30/13

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Cust Item ID:

Required Date: 11/08/13

Req'd Qty: 20.00

20

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG : 22153

1- Black Anodize as per Dwg 646.9700

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Conformity is required

CL 13/11/22 (20)

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.00

Packaging

20x 13-12-19

155

QC5- Inspect part completeness to step on W/O

0.00

155

QC

Memo

0.00

Quality Control

DAS
27
9-89

13/12/19

20

DAS
28
9-89

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Item ID: 649.8310

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Cutter Body

Start Date: 10/30/13 Start Qty: 20.00 *20*

Cust Item ID:

Required Date: 11/08/13 Req'd Qty: 20.00 *20*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location: <u>composite</u>	0.00							
180									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

20

13-12-20

MCJ 13-12-23

MF 13-12-20

Picklist Print

October-29-13 8:51:47 AM

Page 1

Work Order ID: 108707
Parent Item: 649.8310
Parent Item Name: Cutter Body

Start Date: 10/30/13
Start Qty: 20.00
Required Date: 11/08/13
Required Qty: 20.00

Comments: IPP REV:A NEW ISSUE 13-10-27 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B5.000X1.000 7075-T6 BAR 5.000" X 1.000"		Purchased	No				f	95.4878		14			

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT	7.8	
125554	7.8	
MAT008	87.6878316	
M125997	6.0008316	
M126615	21.477	
M126981	60.21	

5 ft.
7.5 ft.

13/11/08

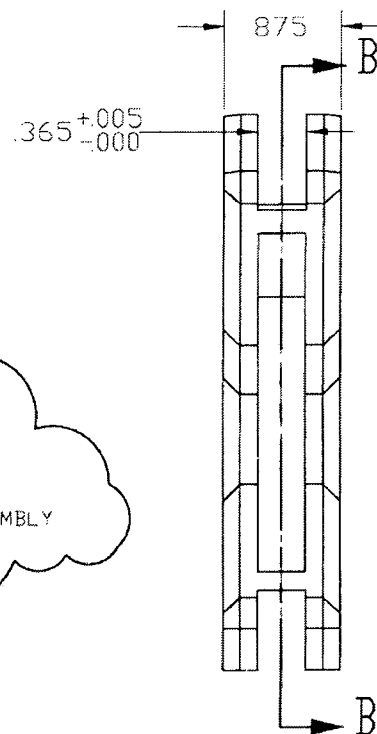
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTIC NO. 03524				SHEET OF 1	
	DWG NO. 649.8300	REV: NC	PREPARED BY S. COCHRAN	DATE: 05/23/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: CUTTER SUB ASSY					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REMOVED NOTE 6, REVISED CUT OUT DIMENSION				

SHEET 1, ZONE A1 IS:

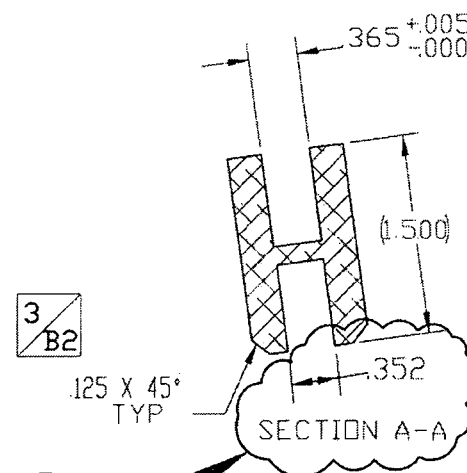
NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE 1AW MIL-A-8625 TYPE III,
CLASS 2, COLOR BLACK;
PRETREAT: PRC-DESOTO PR-148 ADHESION PROMOTER;
PRIME 1AW MIL-P-23377J TYPE I CLASS N; 1-2 MIL MAX
- 3 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 4 IDENTIFY 1AW MPP-120
- 5 APPLY F/N 6 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5 UPON ASSEMBLY

IS



SHEET 2, ZONE D8 IS:



IS

108707 MWS
13-10-29

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

REVIEWS			
REV	DESCRIPTION	DATE	APPROVED
N/C	INITIAL RELEASE	04-18-12	P. BRAV

-
- 649.8301
- ①
- ② 6 PL
- ③ 12 PL
- ④ 6 PL
- ⑤ 2 PL

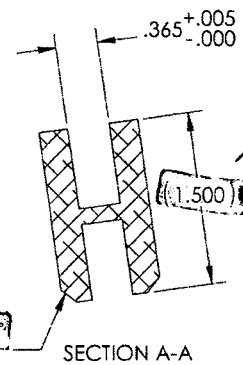
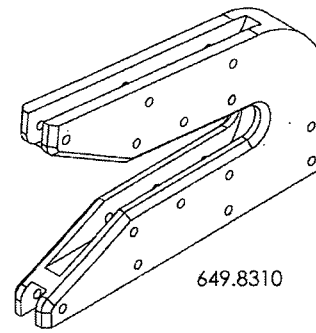
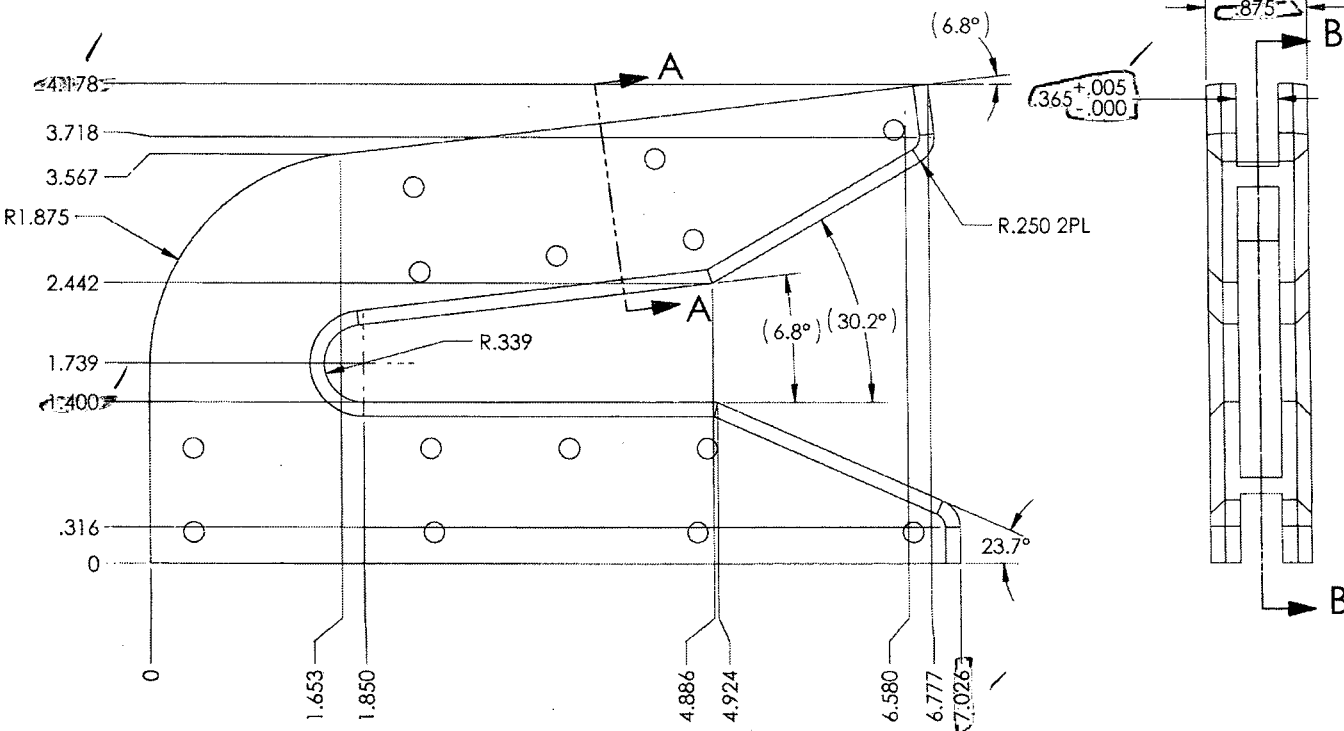
03524

A/R	6	601.2764	RTV	LOCITE 598	
2	5	646.9711	BLADE		
6	4	601.1541	LOCKNUT	MS21042L08	
12	3	601.2764	WASHER	NAS1149FN832P	
6	2	601.2765	SCREW	MS27039-0819	
1	1	649.8310	CUTTER BODY		
		649.8301	CUTTER ASSY		
8301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
GTY			PARTS LIST		
NEXT ASSY (S)			APICAL INDUSTRIES		
649.4900			2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
ORIGINAL DATE (MONTH-YR) 06-10-15 DRAWN BY: T. COCHRAN P. BRAVO DRAWING APPROVAL P. BRAVO CHECKED BY:			CUTTER SUB ASSY		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .0005 3 PLACE DECIMALS .0005 ANGLES .5°			SET CAGE CODE B 07M26 SCALE NONE SHEET 1 OF 4		
649.8300 649.8301			DIMC. NO. 649.8300 RY NC		

108707

1
2
3
4
5
6
7
8

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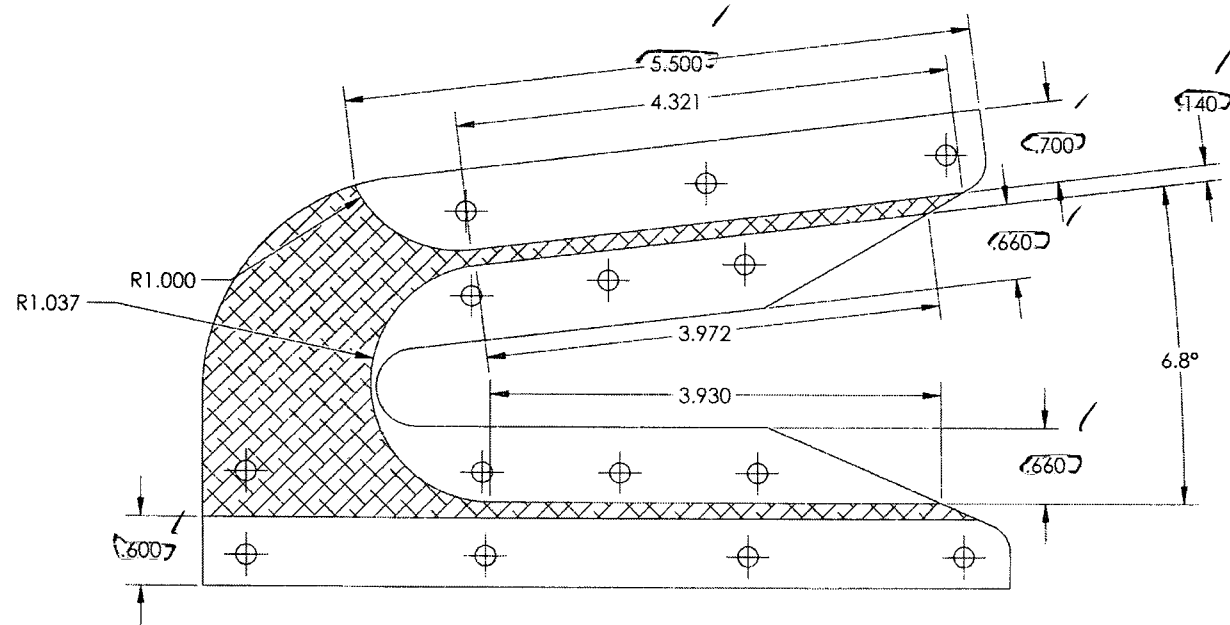
3
B2

.125 X 45°
TYP

ORIGINAL DATE 10/24/79		APICAL INDUSTRIES	
DRAWN BY: S. COCHRAN		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAY		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL		CUTTER SUB ASSY	
BY: P. BRAY		REV	
CONTRACT NO.		HC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS .01 2 PLACE DECIMALS .005 ANGLES .5°		SEE CAD CODE B 07/12/6	DWG NO. 649.8300
		SCALE NONE	SHEET 2 OF 4

108707

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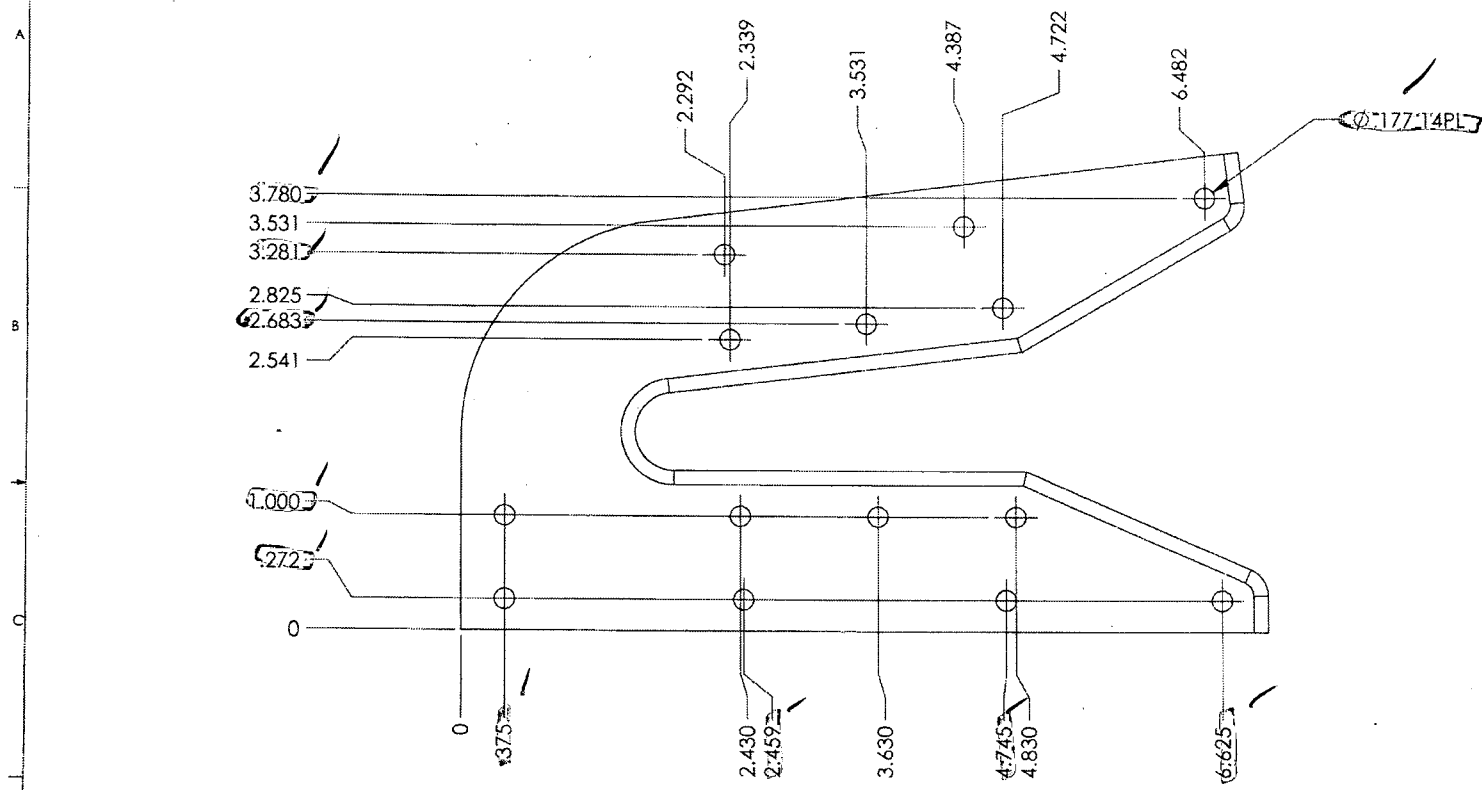
SECTION B-B
SCALE 1:1

2
C6

ORIGINAL DATE 08-12-12		APICAL INDUSTRIES	
DRAWN BY J. B. BAYO		2608 TEMPLE HEIGHTS DR.	
CHECKED BY J. B. BAYO		OCEANSIDE, CA. 92036-3512 (760)724-5300	
DRAWING APPROVAL J. B. BAYO		CUTTER SUB ASSY	
DATE 08-12-12		REV. NC	
CUTTER PART NO.		SCALE NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°		SHEET 3 OF 4	

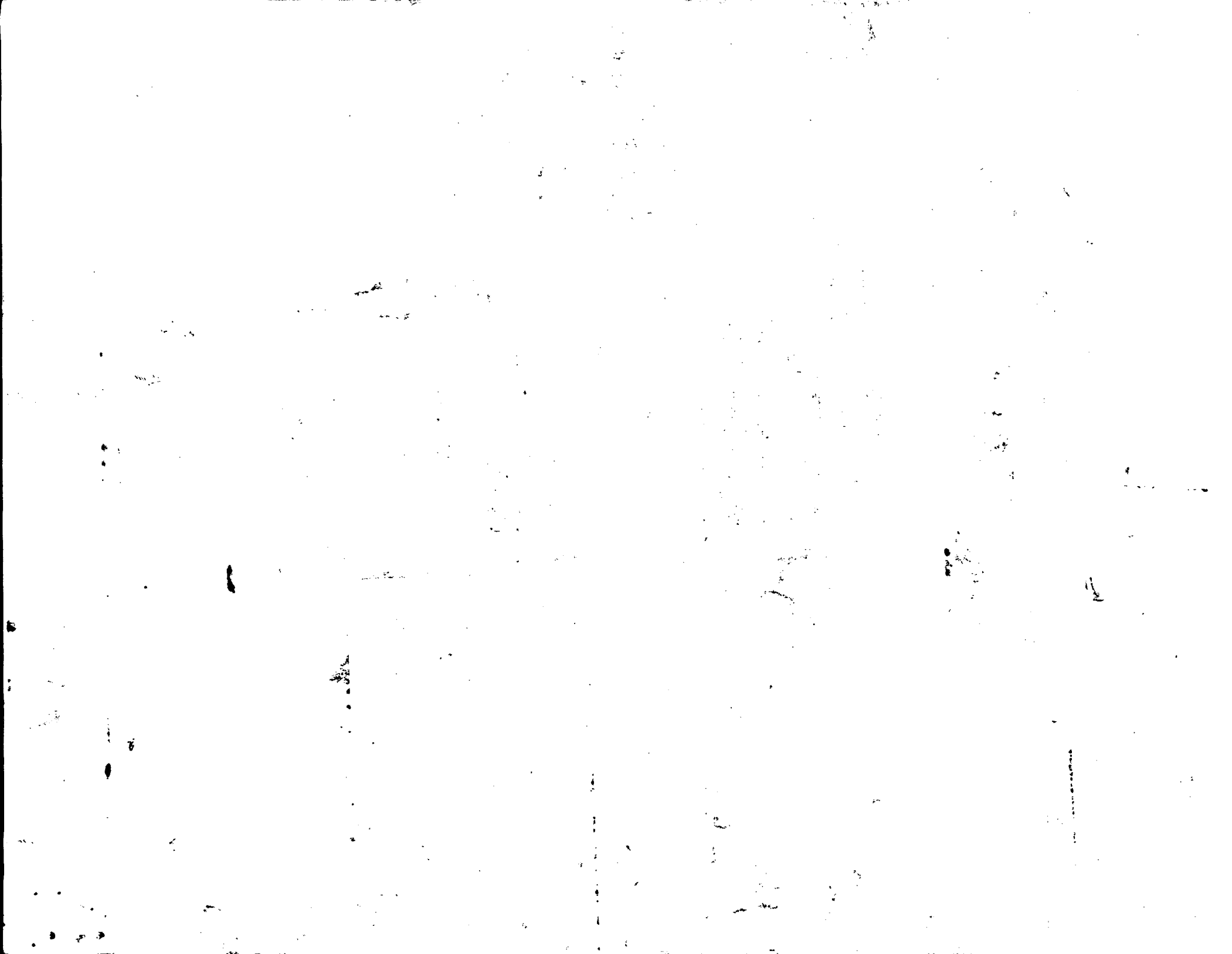
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HOLE LOCATIONS +/- .002

ORIGINAL DATE: 06-12-12 JACOBI & JACOBI 5 COCHRAN P BRAYO DRAWING APPROVAL P BRAYO 06-12-12 CONTRACT NO.		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SEE CASE CODE B 07M26	DWG. NO. 649.8300
SCALE: NONE		REV. INC	SHEET 4 OF 4



DART AEROSPACE LTD	Work Order: 108707
Description: cutter body	Part Number: 6498310
Inspection Dwg: 649.8300 Rev: 11/C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
8.75	+ .005	8.77	✓		Vern	SL-10
3.65	+ .005	3.67	✓			
125X45°	+ .005 ± .5°	128X45°	✓			
1.500	+ .005	1.500	✓			
4.178	+ .005	4.176	✓			
1.400	+ .005	1.401	✓			
7.026	+ .005	7.026	✓		Vern	CNC-02
6.00	+ .005	5.99	✓			SL-10
5.500	+ .005	5.500	✓		H-G	
7.00	+ .005	6.99	✓		Vern	"
6.66	+ .005	6.59	✓		H-G	
1.40	+ .005	1.42	✓		Vern	"
6.60	+ .005	6.59	✓		H-G	
Ø.177	+ .005	Ø.178	✓		Vern	"
2.72	+ .002	2.72	✓			
1.000	+ .002	1.000	✓			
2.683	+ .002	2.684	✓			
3.281	+ .002	3.282	✓			
3.780	+ .002	3.780	✓			
3.75	+ .002	3.75	✓			
2.459	+ .002	2.459	✓			
4.745	+ .002	4.746	✓			
6.625	+ .002	6.625	✓			

Measured by: SL	Audited by: A.A. DAS	Preliminary Approval:
Date: 13-11-14	Date: 13/11/17	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15



A.T.G. Industries Inc.
 731, rue Industrielle Rd.
 PLATING DEPARTMENT
 Rockland, On K4K 1T2
 Canada
 Ph: (613) 446-4544
 Fax: (613) 446-4556

Pack List

Number: 62794

Date: 18-Dec-13

To

DART AEROSPACE LTD
 1270 ABERDEEN ST.
 HAWKESBURY, ON K6A 1K7
 Canada

Ship To


DART AEROSPACE LTD
 1270 ABERDEEN ST.
 HAWKESBURY, ON K6A 1K7
 Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity		Description	
1 lot	Part: ASST Rev: 16 PCS D4410-11 (0.90) 22 PCS 41232-200-002-001 (1.60) 20 PCS D2348 (0.95) BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2 12 PCS 646.3311 (18.10) 6 PCS 646.3012 (19.90) 8 PCS 647.4610 (12.05) 8 PCS 647.9312 (8.55) 27 PCS 647.9317 (18.00) 6 PCS 647.9411 (24.50) 4 PCS 649.8310 (14.50) HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20130775 PO: 22153 Line:		
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE: 18/12/13 CERTIFIED SIGNATURE:  RECEIVER SIGNATURE:			